

## WITHIN OUR BORDERS



AN ALBERTA  
GOVERNMENT  
PUBLICATION

- Hunting Regulations
- Police Subsidy
- New Resort Area
- School Broadcasts
- Ministers to meet

SEPTEMBER, 1966

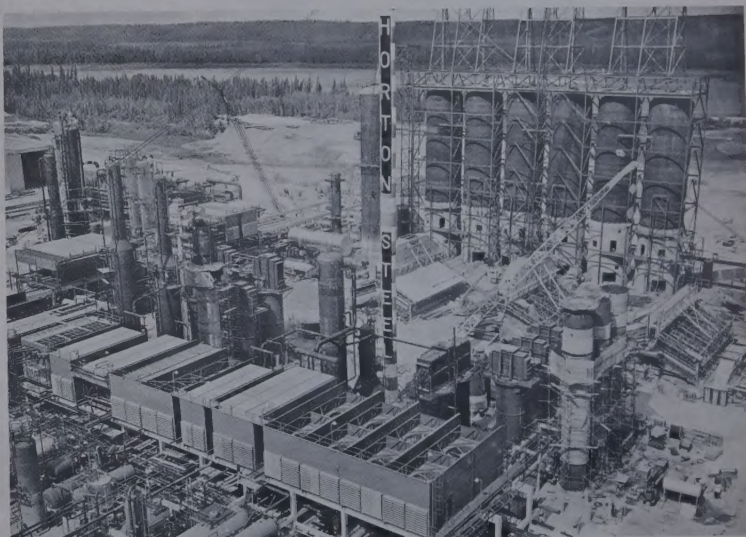
# Margin of Safety, Efficiency Kept High As Provincial Testers Check Tar Sands Units

ONE OF THE MAJOR safety inspection projects of the Boilers Branch, Alberta Department of Labour, is now nearing completion with the "on site" fabrication and erection at Fort McMurray of the largest 'delayed coking' unit in the world.

Six steel pressure vessels, each weighing 160 tons, 94 feet high, with an inside diameter of 26 feet and a capacity of 1,000 tons of coke, will face one more critical test by Boilers Branch inspectors before going into operation late in 1967, to produce approximately 3,000 tons of coke a day as a source of fuel for the power house at the oil sands plant. The forthcoming final safety test for the "coke drums" is a hydrostatic test in which each is filled with water and raised to a pressure  $1\frac{1}{2}$  times the design working pressure. By means of a pressure pump the drums, which have a wall thickness of  $\frac{3}{4}$ " at top and  $1\frac{1}{8}$ " at base, will be raised to a pressure of 110 lbs. per square inch at top and 144 lbs. per square inch at base, to test their strength for the capacity loads of 1,000 tons of coke each will be expected to carry.

Already the whole 'coking unit' has come through a battery of safety inspection tests prior to the final 'water' test. Even before construction of the coke drums was begun on site in May 1965, detailed drawings were submitted to the Chief Inspector of the boiler branch and were required to conform to regulations of the nationally accepted code for construction of unfired pressure vessels. Once design approval was gained, the steel sections were formed and numbered in a Calgary plant and then transported by rail to the plant workshops at Fort McMurray for fabrication into the six drums.

Rigid control of the construction of the drums was maintained by field inspectors who radiographed every welded seam in each of the drums. In this method, every seam bears a lead number and these must appear in sequence on x-ray films which are also numbered in sequence for inspection purposes. The soundness of all joints was further tested by the use of dye-penetrants. In this test, the welded seams are washed with a special dye which penetrates the surface and detects cracks by tracing their outlines in easily observed white.



A portion of the \$230,000,000 Athabasca oil sands project with the six coke drums (largest unfired pressure vessels in the world) standing erect (right background). The gigantic drums, each weighing 160 tons, were moved horizontally by rail from the workshop where they were built (far left background), lifted by crane into position and lowered into concrete silos where they were individually stress-relieved by inspectors of Alberta's Boiler Branch.

Since the safety of the coke drums depends on the quality of the welding involved, Boilers Branch inspectors were also responsible for the testing of more than 100 welders needed to work on the job site. Welders who were tested by government inspectors in Montreal, Calgary, Edmonton and the plant site, underwent various practical tests. They were tested on their ability to weld similar and dissimilar materials together such as low alloy and stainless steel, and a variety of welding techniques to be used at the plant. Those accepted are tested every 18 months and retested when required to work on new materials. In this way, inspectors help to maintain quality control on the job.

Once the coke drums were built and erected, the important stress-relieving procedure commenced under the surveillance of Boilers Branch inspectors. The first drum was completed last fall and the other five this spring. During this procedure, the drums were subjected to temperatures of 1100°F. for 90 minutes.

Since the coke drums will be in a critical type of service they will be re-inspected at regular intervals during their lifetime. Some five of the Boilers Branch's 32 inspectors have carried out tours of duty at the tar sands plant and will continue the regular periodic inspections necessary to maintain Alberta's outstanding record of industrial safety.



## Watershed Basin Studies to Assist Proper Utilization of Land Resources

FEDERAL ASSISTANCE under the Agricultural Rehabilitation and Development Act has been approved for the Watershed Research Study presently being conducted by the Water Resources Division of the Alberta Department of Agriculture.

The general objective of the program is to record the effect of agricultural development on the runoff and erosion characteristics of land presently under forest cover and to develop recommended patterns of land development and water control. The project will extend over a ten year period to allow time to observe the effects of a variety of annual climatic conditions and during which normal agricultural development will take place in an area which is initially virgin.

The first watershed basin to be used for the study is located in the Valleyview area, in the forested section of the province. It has a mixed cover of heavy timber, brushland and some muskeg. This is the first of an expected three or four research basins to be established, each with a different type of environment. These basins will be, in effect, large scale laboratories in which the benefits of various types of land management may be observed and compared from a soil-and-water-conservation point of view. The program will not affect the research area physically. It will be allowed to develop naturally as it is opened to homesteading and agricultural development takes place. Throughout this change, readings and observations will be taken to determine the effects of development on hydrological characteristics.

Main access roads have been completed into the area, and instrumentation has started. When completed, the hydrometeorological instrumentation of the basin will include at least one Class A meteorological station, twenty or more precipitation gauges, several temperature gauges, ten to fifteen hydrometric stations, a network of piezometer nests to record groundwater fluctuations and a system of snow courses. The main hydrometric station was established last fall. Additional stations and meteorological equipment are presently being installed. Supply and maintenance of the meteorological equipment is the responsibility of the Federal Department of Transport, while readings and observations will be taken by the Alberta Water Resources Division. Installation, maintenance and observations at the hydrometric stations are being done in co-operation with the Federal Water Resources Branch of the Department of Mines and Technical Surveys. Groundwater instrumentation is being handled by the Research Council of Alberta.

Special aerial photography of the basin and the ground survey necessary for subsequent mapping to a 20 foot contour interval is accompanying the instrumentation. A detailed study and mapping of the type, moisture, infiltration and capacity of soils; vegetation cover and slopes will also be undertaken.

Preparation of the Valleyview research basin is expected to be completed in 1967, with the estimated completion date for the overall project 1980.

## New Organization Designed to Assist Agricultural Service

TO SIMPLIFY internal operations and to increase the efficiency of its services to the residents of the province, the Alberta Department of Agriculture has re-organized its 15 branches into seven basic divisions: Plant Industry, Animal Industry, Program Development, Extension and Colleges, Water Resources, Cultural Economics and Veterinary Services.

Each division is made up of branches sections with a common denominator of expertise. The five sections of the Plant Industry Division all deal with soil and crops and were formerly grouped under the Field Crops Branch. The Animal Industry Division brings together under one director, the Livestock Branch, the Poultry Branch and the Dairy Branch, while the Program Development Division includes such services as the Marketing Council, A.R.D.A., and Land Utilization. The Extension and Colleges Division is concerned with agricultural education within the province; the new Water Resources Division is an amalgamation of the Water Resources Branch and the former Colonization Branch; the Economics Branch and administration of the Farm Purchase Act make up the Agricultural Economics Division; and, in the Veterinary Services Division are the Veterinary Branch and the Fur Farms Branch.

Under the new organization, only seven divisional heads will report to the Deputy Minister of Agriculture, and these seven will make up the Executive Committee for policy and programming purposes.

## Calendars Listing Production Schedules Sent Out To Ensure Greatest Use of Broadcast Education

THIS YEAR, for the first time, separate calendars which list school radio programs and school television programs will be sent out to principals, teachers and audio-visual co-ordinators in Alberta by the Audio-Visual Branch of the Department of Education. Some 36,000 calendars will be mailed in September, an indication of the popularity of radio and television school programs in the province. Television programs, especially, have been gaining wide acceptance as teaching aids and during the 1965-66 season, 2,053 school rooms in Alberta reported using the service compared with 519 school rooms in 1963-64.

For the 1966-67 season a full schedule of radio and television programs are planned from October to May covering many phases of the Alberta curriculum from elementary mathematics to a chemistry series for senior high school students. In addition, there will be many programs with a Centennial flavour.

A new radio series, "Trailblazers of the Rockies", originated by Alberta's Audio-Visual Branch, will dramatize events from the lives of Tom Wilson who found Lake Louise, Mary Shaeffer who discovered Maligne Lake, and Jim Simpson who guided early surveys for the Banff-Jasper Highway.

A popular series for Grades I to III, "Magic Door", celebrating its 20th anniversary, will re-broadcast well-loved stories of those 20 years.

Locally made products of Alberta's Indians will be the theme of another new series "Proud Pathfinders" for elementary pupils, and "Pioneer Communities" will feature recorded visits and interviews with Alberta pioneers in two other new programs.

Alberta's audio-visual branch will also contribute six programs to western regional school broadcasts on modern science topics for Grades VI to IX on the following themes: food from waste; water resources; energy in the future; communication and high frequency sound. It will also be responsible for 22 programs in the "World of Today" series on current events of interest to junior high school students.

The provincial radio broadcasts are scheduled over CKUA every school morning from 11:00 to 11:15 and follow a general pattern of social studies for elementary grades on Mondays, elementary science on Tuesdays; junior high current events on Wednesdays, language on Thursdays and stories for Grades I to III on Fridays. Network radio programs over CBC stations across Canada are available to schools each afternoon from 2:03 to 2:30 p.m., October to May.

Television highlights selected from some 61 Alberta produced programs for the coming season include "Alberta at Work". Formerly on radio, this four program series visits lesser known industries in the province to show school children the operations of milk canning, honey processing, glove making, machine knitting, boat-building with fibre glass and the manufacture of plastics and glass.

"Elementary Mathematics", is a new ten-program television series prepared in conjunction with the new mathematics courses now going into effect for elementary grades.

To meet teacher requests for explain-how programs at the Grades I to III level, a new series "Community Helpers" will show children how such services as gas, telephones, electricity and water are brought to their homes.

Contributing to regional programs which are viewed by schools in the four western provinces, Alberta's Audio-Visual Branch will produce a series of four "Fine Arts" programs on art, drama, music and dance to show how self-expression from childhood can develop into polished professional performances or art forms.

"Aerodynamics", explained at the Grade V level, in three programs, explores the theory of flight.

The situation faced by the Plains Indians when the vast buffalo herds dwindled away, will be portrayed in the "Last of the Beaver Man" using artifacts from the Provincial Museum to illustrate the ancient tribal ceremony of the Beaver Bundle. Alberta will tell this story in the four program series "Facts From Artifacts" with the other three western provinces contributing stories from their past.

The Alberta-produced television productions will be seen Mondays and Fridays from 10:00 to 10:30 a.m., October to May, in addition to contributions to western regional programs, every Wednesday throughout the school year. Tuesdays and Thursdays, teachers can take advantage of a wide variety of CBC telecasts dealing with topics from automation to urbanization.

Also available to teachers from Alberta's Audio-Visual Branch are guide books with detailed information about 1966-67 programs and suggestions for related activities. Teachers can also request pupil booklets, for use with programs on music, art and science, as well as tapes of provincial programs broadcast by CKUA from the new 1966 Tape Catalogue sent to all schools. To use this last service, the school must supply the Branch with blank tapes for duplication of the program requested.



## Splendid Sport, Vacation Area Revealed by North Council Study

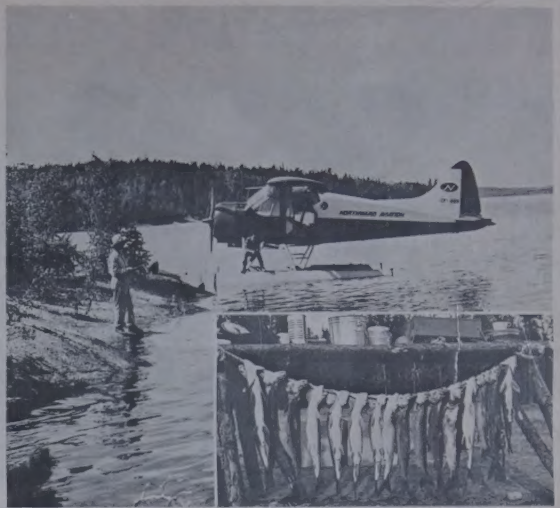
THE BEACHES are sandy, the water is crystal clear and the fishing is fine reports a sport test fishing survey recently conducted at Andrew Lake in northeastern Alberta by the Northern Alberta Development Council.

The lake whose sport fishing possibilities were explored lies 500 air miles north east of Edmonton and is adjacent to the Northwest Territories and Saskatchewan boundaries. It is 11 miles long, one half to two and a half miles wide and runs deep.

A four-man survey party fished a 7½ mile stretch and found the fishing could be classed as excellent. Lake trout weighing up to 4½ pounds were fished in the top 10 feet of water and were reported numerous. The skins were silvery with various coloured markings, and the flesh ranged from a pale colour to red. Also, numerous jackfish weighing up to 10 pounds were caught just offshore.

The potential for a sport fishing lodge at Andrew Lake appears most inviting, concludes the Council's report, since excellent locations are abundant on the many sandy beaches, water and sewage are no problem and the lake abounds in fish. However, the report points out that development of a sport fishing lodge would be expensive due to the high cost of transportation into the isolated area.

The survey was prompted by the Council's interest in developing the sport fishing industry in northern Alberta. This area is already responsible for one-fourth of Alberta's total commercial catch by weight. And during the 1961-62 season, approximately 2.3 million pounds of fish were landed by commercial fishermen from the following northern Alberta lakes - Lac La Biche (33%), Whitefish Lake (22%), and lesser quantities in Winefred, Athabasca, Heart, Muriel, Cold, Pinehurst and Beaver Lakes.



Fishing from shore or from the floats of the aircraft for mobility, sportsmen at some of the virtually untouched northern Alberta lakes have major success. Some of the catch is shown inset, ready for processing for dinner. It's the custom for many who have enjoyed fishing in these northern waters to use unbarbed hooks so the fish may be returned without injury.

## Bird Hunters Will Follow System Of Management Unit Game Control

HUNTING REGULATIONS announced by the Fish and Wildlife Branch, Alberta Department of Lands and Forests, indicate that upland bird hunters will be following the Wildlife Management Unit system for the first time this year. The system was introduced last year to big game hunters and has proven a versatile method of managing wildlife resources. More extensive use of the system is being employed in the 1966 big game regulations, while waterfowl seasons are set on a standard north-south division.

Antelope hunting regulations remain similar to the system introduced last year. Licenses are issued on a draw basis for seven designated hunting areas, with the open season being October 23 to 30 excluding Sunday, October 24.

For waterfowl hunters, the province has been divided into North and South areas, the dividing line being Highway 16. A goose management area has again been established in the Sullivan Lake area (WMU's-G164 and G166) for protection of the Ross Goose. No white geese may be taken in this area until October 9. Hunting season started September 13 in the Northern section and September 24 in the South. Limits have been set at five ducks per day, with a possession limit of 10. Not more than three may be mallards (possession - 6) and not more than two may be redhead or canvasback (possession - 4). After October 15 the hunter's bag may contain two additional scaup (possession - 4).

Goose limits have been set at five daily, with a possession limit of 10. Not more than three (possession - 6) may be white fronted. Limit on coultis and rails has been set at five daily, with a possession limit of 10, while the limit on Wilson's snipe is eight (possession - 16). The 100 yard limit on rivers and the half mile limit on certain lakes will be lifted from November 1 to December 4.

Upland bird game limits are now listed by management units. Through this method, the Fish and Wildlife Branch expects larger, but better controlled, bird harvests will result. Certain areas opened September first, with others opening October 1 and October 15.

Big game seasons vary considerably in different areas, but generally opened September 1 in the more inaccessible regions and September 14 in the more accessible mountain regions.

In establishing the management units, the province was divided into five major regions, each differing from the other in climate, soil, vegetation and type of game. Each region was further divided into Wildlife Management Units, 134 in all, numbered in series according to the region. Thirty units in the G-100 series are located in the dry grassland area of southeastern Alberta. Another 31 units (P-200 series) are located in the east central parkland region, 30 (F-300) in the western foothills, 23 (S-400) in the mountains, and 20 (M-500) are located in the mixed forest area of northern Alberta.

This arrangement provides more flexibility in management, enabling officials to treat game on a local population basis. Hunting areas for big game and upland birds are established by designating specific groups of management units in which hunters may operate. When a specific area is found unsuitable for hunting due to a depletion of the game population, it may be closed, while surrounding units with good populations of game are left open to hunters.

Waterfowl regulations are established by a joint federal-provincial conference, while upland bird and big game regulations are met by a provincial advisory council. Both govern their decisions on recommendations made by the Fish and Wildlife Division, which are based on biologists' reports of game conditions. The provincial advisory council is made up of representatives from the Alberta Federation of Agriculture, Stock Growers' Association, Alberta Fish and Game Association, Guides and Outfitters' Association, Trappers' Association and the Alberta Fish and Wildlife Division.

Schedule pamphlets (including maps) on big game and game bird seasons and limits are made available prior to the hunting season. Additional information may be obtained from the nearest Fish and Wildlife Office.

## Municipal Police Subsidy Program Is Interim Measure

MUNICIPALITIES of up to 1,500 population that maintain their own police forces are now eligible to receive a subsidy of \$3,600 per force per annum from the Provincial Government. This is an interim measure to be in effect until the R.C.M. Police is able to provide them with police services.

Under the terms of a new contract with the Province, the R.C.M. Police are responsible for police work in these communities, "as and when manpower becomes available." The Agreement was effective April 1, 1966. It is expected to take from a year to 16 months before the Agreement will be fully implemented.

In the meantime, municipalities will continue to provide their own police forces, supplemented with R.C.M. Police assistance. The program is being administered by the Corrections Branch of the Attorney General's Department.

## Flowers In Design Foretell Centennial Garden Programs

NEW THIS YEAR, a floral replica of the provincial coat of arms grows in seven colors near the Legislative Buildings. Five varieties of low growing carpet bedding are used. Nine thousand individual transplants, set three inches apart, took two days to complete. The plants were grown last winter in Department of Public Works greenhouses. This 23 x 17 feet bed was planted in June to test techniques for next year, when it is planned that two beds for a Canadian Flag and a Centennial Maple Leaf might be set out beside the south stairs behind the Legislative Building.



# Three Irrigation Studies Give Basis for Formation of Policies

THE IRRIGATION Policy Committee of the Alberta Department of Agriculture has now met with all Irrigation District Boards and other organizations concerned, to advise them of the details of various irrigation studies being carried out by both federal and provincial agencies. These studies are designed to be the basis for the development of a new irrigation policy which would be more agreeable to both Irrigation Districts and government.

At the instigation of the Department of Agriculture, three studies are being carried out under the Agricultural Rehabilitation and Development Act. The field work is almost entirely completed and the results are now being compiled and evaluated.

The first study, under the administration of the P.F.R.A., employed engineers in the field to determine the physical features of irrigation projects, structures, drainage, present condition, the cost of improving present status and operating and maintenance costs. The second study, carried out by economists of the Farm Economics Division of the Federal Government, is to determine the primary costs and benefits of irrigation to the farmer. The third study, handled by a team from the University of Alberta, is investigating the secondary and tertiary benefits which stem from the increased use of resources and land and the marketing of additional agricultural commodities. Costs of personnel involved in these studies are shared by provincial and federal governments under A.R.D.A.

Two additional studies are being completed by branches of the Alberta Department of Agriculture. The Farm Economics Branch is studying the administrative structure of existing Irrigation Districts and, at the same time, is working with the Colonization Branch and the Water Resources Branch on a study of drainage, operation, maintenance and benefits of existing irrigation projects.

All studies are expected to be released by this spring, and the results will be brought be-

fore Irrigation District Boards and other interested groups by the Irrigation Policy Committee. There, the findings will be discussed and evaluated by the organizations which will present their recommendations to the Committee. The Committee, in turn, will study all available facts and recommend to the Minister a policy which will be agreeable to both Irrigation Districts and to the government.

The Irrigation Policy Committee, which was formed in July of 1964, is made up of C. J. McAndrews, Manager of the Colonization Branch; Dr. G. R. Purnell, Director of the Farm Economics Branch; and R. E. Bailey, Chief Engineer, Water Resources Branch.

## Youth Department Assumes Control Of Junior Wardens

TRANSFER HAS BEEN made of administration of the Junior Forest Warden program from Lands and Forests to the new Alberta Department of Youth. Officer in charge of Junior Forest Wardens, served the program since its inception in 1961, will transfer to the new Department. Effective date of all transfers is October 1, 1966.

The primary objective of the training program, to impress young minds with the values inherent in the conservation of renewable resources, will remain unchanged by new stewardship.

The movement has grown from three clubs in 1960 (Hinton, Edson and Slave Lake) to thirty-three in 1966, comprising a total membership of over 700 youths. Club membership is limited to boys who have reached their tenth birthday or who have not exceeded an age of eighteen.

## Travellers Aided By New Bureau At Lloydminster

A NEW SUMMER Information Office has been opened in Lloydminster by the Alberta Government Travel Bureau. It is the third of its kind in a long range program to put tourist information centers at each of the main highway entrances to the province.

The new Lloydminster office is located in the city museum on the Saskatchewan side of the border, and is operated co-operatively by the Lloydminster Chamber of Commerce, the Chamber and the Information Center are managed by Mr. R. Wunder.

The other offices, which have been open for several seasons, are at Flood, B.C. near Highway 1 on the Trans-Canada Highway, and at St. Mary's, Montana. It is expected that 70,000 inquiries about roads, accommodation, points of interest and places to visit while in Alberta will be handled by the three offices this season.

Each office is staffed by three Alberta residents who know their province well. Some are university students employed for the summer. Others are retired, or semi-retired persons who still enjoy meeting and helping the public. The offices are open from the first of June until the end of September.

"Within Our Borders" is a publication designed to acquaint the people of the Province with the administration of the Alberta Government.

There are no restrictions in the republishing of any material but a credit line would be appreciated.

Notice of change of address should be accompanied by the mailing address on the front of the issue. No charge is made for "Within Our Borders" and new readers are invited to forward their name and address to "Within Our Borders", Room 245 Highways Building, Edmonton.

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## Coming Events

During the coming year Alberta will be the scene of many events of provincial, national and international interest. Within Our Borders is pleased to list these in its Coming Events column. Information should be forwarded to Within Our Borders, Room 245 Highways Building, Edmonton.

### SEPTEMBER

3-5	Merritt Stampede	Merritt
3-5	Southeastern Golf Tournament	Medicine Hat
3-5	Totem Golf Tournament	Jasper
4	Canoe Race	Drayton Valley
4	Coin-A-Rama	Medicine Hat
4-5	Calgary Ultra Light Aircraft Association Annual Fly-in	Airdrie
5	Amateur Rodeo	Taber
10-11	Calgary Retriever Club Fall Trial	Calgary
11-14	Canadian Association of Painting and Decorating Contractors	Edmonton
15-18	Canadian Osteopathic Association	Jasper
16-17	Alberta Association of Medical Record Librarians	Edmonton
17	18th Annual Alberta Provincial Truck Rodeo	Calgary
17-18	Canadian Chesapeake Club Fall Trial	Edmonton
18-23	Canadian Press and the Canadian Daily Newspaper Publishers Association	Jasper
19-22	Albertan Council of the Blind Convention	Edmonton
24-25	Fly-in to Jasper	Jasper
24-25	Alberta Field Trial Club Fall Trial	Calgary
25-30	Canadian Medical Association (Alberta Division)	Jasper
30-Oct. 1	Lacombe Stampede	Lacombe

### OCTOBER

1-2	Edmonton Sporting Dog Club — Fall Trial	Edmonton
2-6	Canadian Chamber of Commerce Convention	Edmonton
5-9	National Field Trail	Edmonton
7-9	Alcoholics Anonymous Convention	Edmonton
8	6th Canadian Field Regiment Association Annual Reunion	Calgary
13	Jubilee Day — S.A.I.T.	Calgary
14-16	Camrose Lutheran College Home — Coming	Camrose
17-18	National Conference on Centennial	Edmonton
17-19	Canadian Restaurant Association — "Hospitality Show"	Calgary
27-28	Alberta Teachers' Association — 1st Edmonton District	Edmonton
28-29	Bench Show of the Hanna District Agricultural Society	Hanna
31-Nov. 4	Annual Fall Livestock Show	Edmonton